REMARKS/ARGUMENTS

Applicants have received and reviewed the Final Office Action mailed October 30, 2008. Claims 1, 16, 19, 22, and 34 have been amended and claim 26 has been canceled without prejudice. Support for the amendments may be found in the specification, claims, and drawings as originally filed. No new matter has been added. Claims 1-3, 5-8, 10-12, 14-19, 21-23, 25, 27-31, 33, and 34 remain pending. Reconsideration and reexamination are respectfully requested.

Claim Rejections Under 35 U.S.C. §103

Claims 1-3, 5-8, 10-12, 14-19, 21-23, 25-31, 33, and 34 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Safarevich (U.S. Patent No. 6,061,595) in view of Swarts et al. (U.S. Patent No. 4,714,815).

Independent claim 1, as amended, recites:

> 1. (Currently Amended) A method of making a medical device, the method comprising:
> providing an elongated shaft comprising a metallic material and defining a surface;
> providing a structural member comprising a metallic material having a predetermined melting point temperature above which the material can flow;
> disposing the structural member adjacent the elongated shaft such that at least a portion of the structural member is adjacent the surface;
> rotating the structural member and the elongated shaft circumferentially while heating a discrete portion of the structural member to a temperature at or above the predetermined melting point temperature;
> allowing the heated portion of the structural member to flow onto the surface of the elongated shaft; and
> allowing the heated portion of the structural member to cool on the surface of the elongated shaft such that a discrete connection area is created forming a mechanical connection between the structural member and the elongated shaft wherein the mechanical connection is a non-welded construction that is achieved without intermixing of material from the elongated shaft and material from the structural member.

As noted by the Examiner, Safarevich pertains to methods of making medical devices in which laser welding is used to join individual elements. The Examiner acknowledges that Safarevich discloses melting both workpieces, but relies upon Swarts to suggest that it would be obvious to only melt one of the two elements being joined. Neither Safarevich nor Swarts

et al. either alone or in combination appear to teach or suggest such a method. Safarevich appears to teach a technique in which spot welding is used to connect a wound element with a mating component. Safarevich appears to teach away from moving the object being welded or the welding unit during the welding process. Safarevich teaches at column 4, lines 56-65:

> Known connections between lead wire ends (usually a multifilar winding) to the shoulder of an electrode mount or connector is a circumferential weld. The problem with this type of weld is that the laser beam must heat a large mass of connector in order to obtain a satisfactory melt to heat and cause fixation of the wire ends. This technique is time consuming, has a tendency of overheating of the components being joined, particularly the wire winding, and has inconsistent results (i.e., reliability defects).

Further, Swarts et al. do not appear to teach or suggest rotating the structural member and the elongated shaft circumferentially while heating a discrete portion. Swarts et al. appear to teach a method for bonding a small diameter wire to a metal surface. Swarts et al. appear to teach the wire is placed on the metal surface and the metal surface on either side of the wire is heated to form a molten metal. It then appears that a molten metal meniscus develops under the wire and when the molten metal cools, the wire is bonded with the metal surface. Swarts et al. do not appear to teach or suggest moving either the wire or the metal surface while heating the metal surface.

Thus, even if one were to combine Safarevich and Swarts et al., one would not arrive at the method as claimed. Furthermore, there appears to be no motivation, suggestion or other reason for one of ordinary skill in the art to modify Safarevich or Swarts et al. to arrive at the method as claimed. Reconsideration and withdrawal of the rejection are respectfully requested. Applicants submit that claims 2-3, 5-8, 10-12, and 14-15 are also in condition for allowance as they depend from claim 1 and add significant limitations to further distinguish them from the prior art.

Turning now to independent claim 16, which recites:

> 16. (currently amended) A method of making a medical device, the method comprising:
>
> providing an elongated shaft comprising a material and defining a surface;
>
> providing a structural member comprising a metallic material having a predetermined melting point temperature above which the material can flow;
>
> providing a heat source;

disposing the structural member adjacent the elongated shaft such that at least a portion of the structural member is adjacent the surface;

moving the heat source circumferentially about the structural member and the elongated shaft while heating a portion of the structural member to a temperature at or above the predetermined melting point temperature;

allowing at least a part of the heated portion of the structural member to flow onto the surface of the elongated shaft; and

allowing the heated portion of the structural member to cool on the surface of the elongated shaft such that a mechanical bond is formed between the structural member and the elongated shaft, wherein the mechanical bond is a non-welded connection that is achieved without intermixing of material from the elongated shaft and material from the structural member.

Neither Safarevich nor Swarts et al. either alone or in combination appear to teach or suggest such a method. Safarevich appears to teach a technique in which spot welding is used to connect a wound element with a mating component. As discussed above, Safarevich appears to teach away from moving heat source circumferentially about the structural member while heating a portion of the structural member. Further, Swarts et al. do not appear to teach that which Safarevich lacks. Swarts et al. appear to teach a method for bonding a small diameter wire to a metal surface in which the wire is held against the metal surface while the metal surface is melted. Swarts et al. do not appear to teach or suggest moving the heat source while heating the metal surface.

Thus, even if one were to combine Safarevich and Swarts et al., one would not arrive at the method as claimed. Furthermore, there appears to be no motivation, suggestion or other reason for one of ordinary skill in the art to modify Safarevich or Swarts et al. to arrive at the method as claimed. Reconsideration and withdrawal of the rejection are respectfully requested. Applicants submit that claims 17 and 18 are also in condition for allowance as they depend from claim 16 and add significant limitations to further distinguish them from the prior art.

Turning now to independent claim 19, which recites:

19. (currently amended) A method of making a medical device, the method comprising:

providing an elongated shaft defining a surface;

providing a structural member comprising a material having a predetermined melting point temperature above which the material flows;

providing a LASER energy source

disposing the structural member on the elongated shaft such that at least a portion of the structural member is adjacent the surface;

moving the LASER energy source longitudinally along the structural member and the elongated shaft while using the LASER energy source to heat the portion of the structural member to a temperature at or above the predetermined melting point temperature;

allowing the heated portion of the structural member to flow onto the surface of the elongated shaft; and

allowing the heated portion of the structural member to cool on the surface of the elongated shaft such that a mechanical bond is formed between the structural member and the elongated shaft, wherein the mechanical bond is a non-welded connection that is achieved without intermixing of material from the elongated shaft and material from the structural member.

Neither Safarevich nor Swarts et al. either alone or in combination appear to teach or suggest such a method. Safarevich appears to teach a technique in which spot welding is used to connect a wound element with a mating component. Safarevich does not appear to teach moving LASER energy source longitudinally along the structural member while using the LASER energy source to heat a portion of the structural member. Further, Swarts et al. do not appear to teach that which Safarevich lacks. Swarts et al. appear to teach a method for bonding a small diameter wire to a metal surface in which the wire is held against the metal surface while the metal surface is melted. Swarts et al. do not appear to teach or suggest moving the heat source while heating the metal surface.

Thus, even if one were to combine Safarevich and Swarts et al., one would not arrive at the method as claimed. Furthermore, there appears to be no motivation, suggestion or other reason for one of ordinary skill in the art to modify Safarevich or Swarts et al. to arrive at the method as claimed. Reconsideration and withdrawal of the rejection are respectfully requested. Applicants submit that claim 21 is also in condition for allowance as it depends from claim 19 and adds significant limitations to further distinguish it from the prior art.

Turning now to independent claim 22, which recites:

22. (currently amended) A method of making a guidewire, the method comprising:

providing an elongated core wire defining an outer surface;

providing a tubular member defining a lumen and having an inner surface, the tubular member comprising a metallic material having a predetermined melting point temperature above which the material can flow;

disposing a portion of the elongated core wire within the lumen of the tubular member such that at least a portion of the inner surface of the tubular member is adjacent the outer surface of the core wire;

moving the elongated core wire and the tubular member longitudinally while heating a portion of the tubular member to a temperature at or above the predetermined melting point temperature of the metallic material;

allowing a part of the heated portion of the tubular member to flow onto the outer surface of the core wire; and

allowing the heated portion of the tubular member to cool such that the part disposed on the outer surface of the core wire forms a mechanical bond between the tubular member and the core wire, wherein the core wire comprises a material, and wherein the mechanical bond between the core wire and the tubular member is a non-welded connection that is achieved without intermixing of material from the core wire with material from the tubular member.

Neither Safarevich nor Swarts et al. either alone or in combination appear to teach or suggest such a method. Safarevich appears to teach a technique in which spot welding is used to connect a wound element with a mating component. Safarevich does not appear to teach moving wound element and mating element longitudinally while heating a portion of the wound element or mating element. Further, Swarts et al. do not appear to teach that which Safarevich lacks. Swarts et al. appear to teach a method for bonding a small diameter wire to a metal surface in which the wire is held against the metal surface while the metal surface is melted. Swarts et al. do not appear to teach or suggest moving the wire or the metal surface while heating the metal surface.

Thus, even if one were to combine Safarevich and Swarts et al., one would not arrive at the method as claimed. Furthermore, there appears to be no motivation, suggestion or other reason for one of ordinary skill in the art to modify Safarevich or Swarts et al. to arrive at the method as claimed. Reconsideration and withdrawal of the rejection are respectfully requested. Applicants submit that claims 23, 25, 27-31, and 33 are also in condition for allowance as they depend from claim 22 and add significant limitations to further distinguish them from the prior art.

Turning now to independent claim 34, which recites:

34. (currently amended) A method of making a guidewire, the method comprising:

providing an elongated core wire comprising a material and defining an outer surface;

providing a tubular member comprising a material and defining a lumen and having an inner surface;

disposing a portion of the elongated core wire within the lumen of the tubular member such that at least a portion of the inner surface of the tubular member is adjacent the outer surface of the core wire; and

providing means for creating a non-welded mechanical bond between the tubular member and the core wire without intermixing of material from the core wire with material from the tubular member, and without the use of an additional bonding material;

wherein creating a non-welded mechanical bond further includes rotating the tubular member and core wire circumferentially.

Neither Safarevich nor Swarts et al. either alone or in combination appear to teach or suggest such a method. Safarevich appears to teach a technique in which spot welding is used to connect a wound element with a mating component. As discussed above, Safarevich appears to teach away from moving the object being welded or the welding unit during the welding process. Further, Swarts et al. do not appear to teach that which Safarevich lacks. Swarts et al. appear to teach a method for bonding a small diameter wire to a metal surface in which the wire is held against the metal surface while the metal surface is melted. Swarts et al. do not appear to teach or suggest moving the wire or the metal surface while heating the metal surface.

Thus, even if one were to combine Safarevich and Swarts et al., one would not arrive at the method as claimed. Furthermore, there appears to be no motivation, suggestion or other reason for one of ordinary skill in the art to modify Safarevich or Swarts et al. to arrive at the method as claimed. Reconsideration and withdrawal of the rejection are respectfully requested.

Conclusion

Reexamination and reconsideration are respectfully requested. It is respectfully submitted that the claims are now in condition for allowance, and issuance of a Notice of Allowance in due course is requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,

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By their Attorney,

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